## **RAW SEQUENCE LISTING**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/630, 518 ASource: 15606Date Processed by STIC: 02/08/2006

## ENTERED



IFW16

RAW SEQUENCE LISTING DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A TIME: 12:08:12

Input Set : A:\SEQ LIST 532792001100.txt
Output Set: N:\CRF4\02082006\J630518A.raw

4 <110> APPLICANT: THE SALK INSTITUTE FOR BIOLOGICAL STUDIES

```
5
         THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
 6
         LILJEGREN, Sarah, Jean
 7
         ECKER, Joseph, R.
         YANOFSKY, Martin, F.
10 <120> TITLE OF INVENTION: GENETIC CONTROL OF ORGAN ABSCISSION
13 <130> FILE REFERENCE: 532792001100
15 <140> CURRENT APPLICATION NUMBER: 10/630,518A
16 <141> CURRENT FILING DATE: 2003-07-29
18 <150> PRIOR APPLICATION NUMBER: US 60/264,974
19 <151> PRIOR FILING DATE: 2001-01-29
21 <150> PRIOR APPLICATION NUMBER: PCTUS02/01938
22 <151> PRIOR FILING DATE: 2002-01-22
24 <160> NUMBER OF SEQ ID NOS: 26
26 <170> SOFTWARE: FastSEQ for Windows Version 4.0
28 <210> SEQ ID NO: 1
29 <211> LENGTH: 1452
30 <212> TYPE: DNA
31 <213> ORGANISM: Arabidopsis thaliana
33 <220> FEATURE:
34 <221> NAME/KEY: CDS
35 <222> LOCATION: (1)...(1452)
37 <400> SEQUENCE: 1
38 atg aac gag aaa gcc aac gtc tct aag gag ctt aat gcc cgc cat aga
39 Met Asn Glu Lys Ala Asn Val Ser Lys Glu Leu Asn Ala Arg His Arg
40 1
42 aag att ett gaa ggg ett ett aaa eat eea gag aac aga gaa tgt get
                                                                      96
43 Lys Ile Leu Glu Gly Leu Leu Lys His Pro Glu Asn Arg Glu Cys Ala
                                    25
46 gac tgc aaa aca aaa ggt cca aga tgg gct agt gtt aat tta ggt atc
                                                                      144
47 Asp Cys Lys Thr Lys Gly Pro Arg Trp Ala Ser Val Asn Leu Gly Ile
            35
48
                                40
50 ttt atc tgc atg caa tgt tct ggg att cac agg agt ctc ggg gta cac
                                                                      192
51 Phe Ile Cys Met Gln Cys Ser Gly Ile His Arg Ser Leu Gly Val His
                            55
54 ata tcg aag gtt cga tct gcc act ctg gac aca tgg ctc ccc gag cag
                                                                      240
55 Ile Ser Lys Val Arg Ser Ala Thr Leu Asp Thr Trp Leu Pro Glu Gln
                        70
                                             75
58 gtt gca ttt ata cag tca atg gga aat gat aaa gca aat agt tac tgg
59 Val Ala Phe Ile Gln Ser Met Gly Asn Asp Lys Ala Asn Ser Tyr Trp
60
                    85
                                         90
                                                             95
62 gaa gca gag cta ccc cca aac tat gat aga gtt gga att gag aat ttt
63 Glu Ala Glu Leu Pro Pro Asn Tỷr Asp Arg Val Gly Ile Glu Asn Phe
```

RAW SEQUENCE LISTING DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A TIME: 12:08:12

<i>C</i> 1				100					105					110			
64	24.2	aa+	~~~		t a t	~~~	~~~	222	105	+~~	~++			110	~	222	204
				aag													384
	116	Arg		Lys	ıyı	GIU	GIU	_	Arg	Trp	vai	ser	_	GIY	GIU	ьys	
68			115			_ :		120					125				430
				cct													432
	Ата	_	ser	Pro	Pro	Arg		GIU	GIN	GIU	Arg	_	ьуs	Ser	vai	GIU	
72		130					135					140					
				ccg													480
	_	Ser	GIY	Pro	GIY	_	GIU	HIS	GIĀ	HIS		Ser	Ser	Pro	Val		
	145					150	•				155					160	
				gag													528
	ьeu	Phe	GIu	Glu	_	ьуs	Thr	He	Pro		Ser	Arg	Thr	Arg		Asn	
80					165					170					175	<i>_</i>	
	_	_	_	acg	_											_	576
	Val	Ala	Ala	Thr	Arg	He	Asn	Leu		Val	Pro	Pro	GIn	_	Pro	Ser	
84				180					185					190			
	_			aag		_	_		_			_	_			_	624
	Gln	Val		Lys	Pro	Gln	Gln	_	Met	Glu	Ser	Ala		Thr	Pro	Val	
88			195					200					205				421
				aaa													672
	Glu	_	GIu	Lys	GIn	Ala		Asn	Val	Ala	Pro		Ser	Asp	Pro	Pro	
92		210					215	_				220	•				
	_		_	ttt	_		-	_			_			_	_	_	720
	_	Val	Asp	Phe	Ala		Asp	Leu	Phe	Asn		Leu	Ser	Met	Asp	_	
	225					230			_		235			_		240	
				aat													768
		Thr	Thr	Asn			GIu	Ala	Thr			Asp	Thr	Pro			
100					245					250					25		
																g gca	816
		) Asi	ı sei	_		r GTŽ	Pne	GII			r GTZ	z Sei	: GIZ			r Ala	
104				260					265					270			
																gct	864
		т гуз			. Thr	Ala	гга			i GIU	ı sei	Sei			Pro	) Ala	
108			275				4_	280					285				010
																aca	912
				Asp	Pne	GIU	_		ı Pne	: гуз	: Asp			) Asr	і те	ı Thr	
112		290					295					300					0.50
																ttt	960
			1 GII	1 Ala	I. Pro			val	. гу	GIY			е мет	. ser	: ье	Phe	
	305					310					315					320	1000
	_					_	_			_		-	_	-	_	ggtt	1008
		ггу	3 1111	ASI			ser	PIC	Pne			HIS	GII	1 GII		ı Val	
120					325					330					335		1056
																gct	1056
		ı Met	. тел			GIN	GIN	L AIS		_	. Met	. Ala	t Ala		_	s Ala	
124				340					345					350			1104
																gct	1104
		r GT	_		Pro	) Asn	GLY			ı GIn	GIr	ı Ala			ASI	n Ala	
128	3		355	•				360	)				365	)			

RAW SEQUENCE LISTING DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A TIME: 12:08:12

	ctt Leu																1152
	ccc		atq	act	aac	ccc		aat	aat	caa	qct		ctc	caq	aaa	ctt	1200
	Pro																
136	385					390			•		395					400	
138	atg	caa	aac	atg	aat	atg	aac	gca	aac	atg	aac	acg	aga	CCC	gca	caa	1248
139	Met	Gln	Asn	Met	Asn	Met	Asn	Ala	Asn	Met	Asn	Thr	Arg	Pro	Ala	Gln	
140					405					410					415		
	ccg											_				_	1296
	Pro	GIn	GIu		Thr	Leu	GIn	Tyr		Ser	Ser	ser	Phe	_	Thr	Met	
144	~~+		~~+	420		~+~		~~+	425					430	~~+		1244
	ggt Gly		_						_								1344
148	GIY	GIII	435	ASII	. GIII	vai	ASII	440	Met	1111	PIO	ASII	445	1111	Gry	цуъ	
	cct	cad		tca	tcc	gca	acc		cca	aca	agc	acc		сса	tct	tca	1392
	Pro	_				_					_						
152		450					455					460					
154	caa	tca	ggc	aaa	gac	ttt	gat	ttc	tct	tcc	ttg	atg	gat	gga	atg	ttc	1440
	Gln				_		_				_	_	_				
156	465					470					475					480	
158	aca	aaa	cat	tga													1452
	Thr	_		*													
	<210																
164	<21:	r> Pi	ENGTI	I: 48	33												
	<212				31			4 la - °		_							
166	<213	3 > OI	RGAN	SM:		oidop	psis	thal	liana	ā							
166 168	<213 <400	3 > OI 0 > SI	RGANI EQUEN	SM: NCE:	2				•		T.eu	Δen	Δla	Ara	ніс	Ara	
166 168 169	<213 <400 Met	3 > OI 0 > SI	RGANI EQUEN	SM: NCE:	2 Ala				•	Glu	Leu	Asn	Ala	Arg		Arg	
166 168 169 170	<213 <400 Met 1	3> OI 0> SI Asn	RGANI EQUEI Glu	ISM: ICE: Lys	2 Ala 5	Asn	Val	Ser	Lys	Glu 10					15		
166 168 169 170	<213 <400 Met	3> OI 0> SI Asn	RGANI EQUEI Glu	ISM: ICE: Lys	2 Ala 5	Asn	Val	Ser	Lys	Glu 10					15		
166 168 169 170 171 172	<213 <400 Met 1	3> OF D> SI Asn Ile	RGANI EQUEN Glu Leu	SM: NCE: Lys Glu 20	2 Ala 5 Gly	Asn Leu	Val Leu	Ser Lys	Lys His 25	Glu 10 Pro	Glu	Asn	Arg	Glu 30	15 Cys	Ala	
166 168 169 170 171 172	<213 <400 Met 1 Lys	3> OF D> SI Asn Ile	RGANI EQUEN Glu Leu	SM: NCE: Lys Glu 20	2 Ala 5 Gly	Asn Leu	Val Leu	Ser Lys	Lys His 25	Glu 10 Pro	Glu	Asn	Arg	Glu 30	15 Cys	Ala	
166 168 169 170 171 172 173	<213 <400 Met 1 Lys	3> OF D> SI Asn Ile Cys	GANI EQUEN Glu Leu Lys 35	ISM: ICE: Lys Glu 20 Thr	2 Ala 5 Gly Lys	Asn Leu Gly	Val Leu Pro	Ser Lys Arg 40	Lys His 25 Trp	Glu 10 Pro Ala	Glu Ser	Asn Val	Arg Asn 45	Glu 30 Leu	15 Cys Gly	Ala	
166 168 169 170 171 172 173 174 175	<213 <400 Met 1 Lys Asp	3> OH D> SH Asn Ile Cys Ile 50	GANI EQUEN Glu Leu Lys 35 Cys	ISM: NCE: Lys Glu 20 Thr	2 Ala 5 Gly Lys	Asn Leu Gly Cys	Val Leu Pro Ser 55	Ser Lys Arg 40 Gly	Lys His 25 Trp	Glu 10 Pro Ala His	Glu Ser Arg	Asn Val Ser 60	Arg Asn 45 Leu	Glu 30 Leu Gly	15 Cys Gly Val	Ala Ile His	
166 168 169 170 171 172 173 174 175 176	<213 <400 Met 1 Lys Asp Phe	3> OH D> SH Asn Ile Cys Ile 50	GANI EQUEN Glu Leu Lys 35 Cys	ISM: NCE: Lys Glu 20 Thr	2 Ala 5 Gly Lys	Asn Leu Gly Cys Ser	Val Leu Pro Ser 55	Ser Lys Arg 40 Gly	Lys His 25 Trp	Glu 10 Pro Ala His	Glu Ser Arg Thr	Asn Val Ser 60	Arg Asn 45 Leu	Glu 30 Leu Gly	15 Cys Gly Val	Ala Ile His	
166 168 169 170 171 172 173 174 175 176 177	<213 <400 Met 1 Lys Asp Phe Ile 65	3> OB D> SD Asn Ile Cys Ile 50 Ser	EQUENCE Glu  Leu  Lys 35 Cys  Lys	ISM: NCE: Lys Glu 20 Thr Met	2 Ala 5 Gly Lys Gln Arg	Asn Leu Gly Cys Ser 70	Val Leu Pro Ser 55 Ala	Ser Lys Arg 40 Gly Thr	Lys His 25 Trp Ile Leu	Glu 10 Pro Ala His Asp	Glu Ser Arg Thr 75	Asn Val Ser 60 Trp	Arg Asn 45 Leu Leu	Glu 30 Leu Gly Pro	15 Cys Gly Val	Ala Ile His Gln 80	
166 168 169 170 171 172 173 174 175 176 177 178	<213 <400 Met 1 Lys Asp Phe	3> OB D> SD Asn Ile Cys Ile 50 Ser	EQUENCE Glu  Leu  Lys 35 Cys  Lys	ISM: NCE: Lys Glu 20 Thr Met	2 Ala 5 Gly Lys Gln Arg Gln	Asn Leu Gly Cys Ser 70 Ser	Val Leu Pro Ser 55 Ala Met	Ser Lys Arg 40 Gly Thr	Lys His 25 Trp Ile Leu	Glu 10 Pro Ala His Asp	Glu Ser Arg Thr 75 Lys	Asn Val Ser 60 Trp	Arg Asn 45 Leu Leu	Glu 30 Leu Gly Pro	15 Cys Gly Val Glu Tyr	Ala Ile His Gln 80	
166 168 169 170 171 172 173 174 175 176 177 178 179 180	<213 <400 Met 1 Lys Asp Phe Ile 65 Val	3> OH D> SH Asn Ile Cys Ile 50 Ser	EQUENT Glu Leu Lys 35 Cys Lys Phe	ISM: NCE: Lys Glu 20 Thr Met Val	2 Ala 5 Gly Lys Gln Arg Gln 85	Asn Leu Gly Cys Ser 70 Ser	Val Leu Pro Ser 55 Ala Met	Ser Lys Arg 40 Gly Thr	Lys His 25 Trp Ile Leu Asn	Glu 10 Pro Ala His Asp Asp	Glu Ser Arg Thr 75 Lys	Asn Val Ser 60 Trp	Arg Asn 45 Leu Leu Asn	Glu 30 Leu Gly Pro Ser	15 Cys Gly Val Glu Tyr 95	Ala Ile His Gln 80 Trp	
166 168 169 170 171 172 173 174 175 176 177 180 181	<213 <400 Met 1 Lys Asp Phe Ile 65	3> OH D> SH Asn Ile Cys Ile 50 Ser	EQUENT Glu Leu Lys 35 Cys Lys Phe	ISM: NCE: Lys Glu 20 Thr Met Val Ile Leu	2 Ala 5 Gly Lys Gln Arg Gln 85	Asn Leu Gly Cys Ser 70 Ser	Val Leu Pro Ser 55 Ala Met	Ser Lys Arg 40 Gly Thr	Lys His 25 Trp Ile Leu Asn Asp	Glu 10 Pro Ala His Asp Asp	Glu Ser Arg Thr 75 Lys	Asn Val Ser 60 Trp	Arg Asn 45 Leu Leu Asn	Glu 30 Leu Gly Pro Ser Glu	15 Cys Gly Val Glu Tyr 95	Ala Ile His Gln 80 Trp	
166 168 169 170 171 172 173 174 175 176 177 180 181 182	<213 <400 Met 1 Lys Asp Phe Ile 65 Val Glu	S > OH O > SH Asn Ile Cys Ile 50 Ser Ala	EGANI EQUEN Glu Leu Lys 35 Cys Lys Phe	ISM: NCE: Lys Glu 20 Thr Met Val Ile Leu 100	2 Ala 5 Gly Lys Gln Arg Gln 85 Pro	Asn Leu Gly Cys Ser 70 Ser Pro	Val Leu Pro Ser 55 Ala Met Asn	Ser Lys Arg 40 Gly Thr Gly	Lys His 25 Trp Ile Leu Asn Asp 105	Glu 10 Pro Ala His Asp Asp 90 Arg	Glu Ser Arg Thr 75 Lys Val	Asn Val Ser 60 Trp Ala Gly	Arg Asn 45 Leu Leu Asn Ile	Glu 30 Leu Gly Pro Ser Glu 110	15 Cys Gly Val Glu Tyr 95 Asn	Ala Ile His Gln 80 Trp Phe	
166 168 169 170 171 172 173 174 175 176 177 180 181 182 183	<213 <400 Met 1 Lys Asp Phe Ile 65 Val	S > OH O > SH Asn Ile Cys Ile 50 Ser Ala	EGANI EQUEN Glu Leu Lys 35 Cys Lys Phe	ISM: NCE: Lys Glu 20 Thr Met Val Ile Leu 100	2 Ala 5 Gly Lys Gln Arg Gln 85 Pro	Asn Leu Gly Cys Ser 70 Ser Pro	Val Leu Pro Ser 55 Ala Met Asn	Ser Lys Arg 40 Gly Thr Gly Tyr Lys	Lys His 25 Trp Ile Leu Asn Asp 105	Glu 10 Pro Ala His Asp Asp 90 Arg	Glu Ser Arg Thr 75 Lys Val	Asn Val Ser 60 Trp Ala Gly	Arg Asn 45 Leu Leu Asn Ile Arg	Glu 30 Leu Gly Pro Ser Glu 110	15 Cys Gly Val Glu Tyr 95 Asn	Ala Ile His Gln 80 Trp Phe	
166 168 169 170 171 172 173 174 175 176 177 180 181 182 183 184	<213 <400 Met 1 Lys Asp Phe Ile 65 Val Glu Ile	S > OH O > SH Asn Ile Cys Ile 50 Ser Ala Ala	EQUENT Glu Leu Lys 35 Cys Lys Phe Glu Ala 115	SM: NCE: Lys Glu 20 Thr Met Val Ile Leu 100 Lys	Ala 5 Gly Lys Gln Arg Gln 85 Pro	Asn Leu Gly Cys Ser 70 Ser Pro Glu	Val Leu Pro Ser 55 Ala Met Asn Glu	Ser Lys Arg 40 Gly Thr Gly Tyr Lys 120	Lys His 25 Trp Ile Leu Asn Asp 105 Arg	Glu 10 Pro Ala His Asp Asp 90 Arg	Glu Ser Arg Thr 75 Lys Val	Asn Val Ser 60 Trp Ala Gly Ser	Arg Asn 45 Leu Leu Asn Ile Arg 125	Glu 30 Leu Gly Pro Ser Glu 110 Gly	15 Cys Gly Val Glu Tyr 95 Asn Glu	Ala Ile His Gln 80 Trp Phe Lys	
166 168 169 170 171 172 173 174 175 176 177 180 181 182 183 184	<213 <400 Met 1 Lys Asp Phe Ile 65 Val Glu	S > OH O > SH Asn Ile Cys Ile 50 Ser Ala Ala	EQUENT Glu Leu Lys 35 Cys Lys Phe Glu Ala 115	SM: NCE: Lys Glu 20 Thr Met Val Ile Leu 100 Lys	Ala 5 Gly Lys Gln Arg Gln 85 Pro	Asn Leu Gly Cys Ser 70 Ser Pro Glu	Val Leu Pro Ser 55 Ala Met Asn Glu	Ser Lys Arg 40 Gly Thr Gly Tyr Lys 120	Lys His 25 Trp Ile Leu Asn Asp 105 Arg	Glu 10 Pro Ala His Asp Asp 90 Arg	Glu Ser Arg Thr 75 Lys Val	Asn Val Ser 60 Trp Ala Gly Ser	Arg Asn 45 Leu Leu Asn Ile Arg 125	Glu 30 Leu Gly Pro Ser Glu 110 Gly	15 Cys Gly Val Glu Tyr 95 Asn Glu	Ala Ile His Gln 80 Trp Phe Lys	
166 168 169 170 171 172 173 174 175 176 177 180 181 182 183 184 185 186	<213 <400 Met 1 Lys Asp Phe Ile 65 Val Glu Ile	3 > OH D > SH Asn Ile Cys Ile 50 Ser Ala Ala Arg	EQUENT Glu Leu Lys 35 Cys Lys Phe Glu Ala 115 Ser	ISM: NCE: Lys Glu 20 Thr Met Val Ile Leu 100 Lys	Ala 5 Gly Lys Gln Arg Gln 85 Pro Tyr Pro	Asn Leu Gly Cys Ser 70 Ser Pro Glu Arg	Val Leu Pro Ser 55 Ala Met Asn Glu Val 135	Ser Lys Arg 40 Gly Thr Gly Tyr Lys 120 Glu	Lys His 25 Trp Ile Leu Asn Asp 105 Arg	Glu 10 Pro Ala His Asp 90 Arg Trp	Glu Ser Arg Thr 75 Lys Val Val Arg	Asn Val Ser 60 Trp Ala Gly Ser Arg 140	Arg Asn 45 Leu Leu Asn Ile Arg 125 Lys	Glu 30 Leu Gly Pro Ser Glu 110 Gly Ser	15 Cys Gly Val Glu Tyr 95 Asn Glu Val	Ala Ile His Gln 80 Trp Phe Lys Glu	
166 168 169 170 171 172 173 174 175 176 177 180 181 182 183 184 185 186	<213 <400 Met 1 Lys Asp Phe Ile 65 Val Glu Ile Ala	3 > OH D > SH Asn Ile Cys Ile 50 Ser Ala Ala Arg	EQUENT Glu Leu Lys 35 Cys Lys Phe Glu Ala 115 Ser	ISM: NCE: Lys Glu 20 Thr Met Val Ile Leu 100 Lys	Ala 5 Gly Lys Gln Arg Gln 85 Pro Tyr Pro	Asn Leu Gly Cys Ser 70 Ser Pro Glu Arg	Val Leu Pro Ser 55 Ala Met Asn Glu Val 135	Ser Lys Arg 40 Gly Thr Gly Tyr Lys 120 Glu	Lys His 25 Trp Ile Leu Asn Asp 105 Arg	Glu 10 Pro Ala His Asp 90 Arg Trp	Glu Ser Arg Thr 75 Lys Val Val Arg	Asn Val Ser 60 Trp Ala Gly Ser Arg 140	Arg Asn 45 Leu Leu Asn Ile Arg 125 Lys	Glu 30 Leu Gly Pro Ser Glu 110 Gly Ser	15 Cys Gly Val Glu Tyr 95 Asn Glu Val	Ala Ile His Gln 80 Trp Phe Lys Glu	

RAW SEQUENCE LISTING DATE: 02/08/2006
PATENT APPLICATION: US/10/630,518A TIME: 12:08:12

																•
190					165					170					175	
	Val	Ala	Ala	Thr	Arg	Ile	Asn	Leu		Val	Pro	Pro	Gln	Gly	Pro	Ser
192				180					185					190		
193	Gln	Val	Ile	Lys	Pro	Gln	Gln	Lys	Met	Glu	Ser	Ala	Ala	Thr	Pro	Val
194			195					200					205			
195	Glu	Arg	Glu	Lys	Gln	Ala	Val	Asn	Val	Ala	Pro	Ala	Ser	Asp	Pro	Pro
196		210					215					220				
197	Lys	Val	Asp	Phe	Ala	Thr	Asp	Leu	Phe	Asn	Met	Leu	Ser	Met	Asp	Asp
198	225					230					235					240
199	Ser	Thr	Thr	Asn	Thr	Ser	Glu	Ala	Thr	Pro	Gly	Asp	Thr	Pro	Ala	Asp
200					245					250				•	255	
201	Asp	Asn	Ser	Trp	Ala	Gly	Phe	Gln	Ser	Ala	Gly	Ser	Gly	Gln	Thr	Ala
202				260					265					270		
203	Glu	Lys	Ile	Val	Thr	Ala	Lys	Pro	Ala	Glu	Ser	Ser	Ser	Pro	Pro	Ala
204		_	275				_	280					285			
205	Ser	Ser	Ser	Asp	Phe	Glu	Asp	Leu	Phe	Lys	Asp	Thr	Pro	Asn	Leu	Thr
206		290		_			295			_	_	300				
207	Thr	Gln	Gln	Ala	Pro	Lys	Asp	Val	Lys	Gly	Asp	Ile	Met	Ser	Leu	Phe
208						310	-		•	-	315					320
209	Glu	Lys	Thr	Asn	Ile	Val	Ser	Pro	Phe	Ala	Met	His	Gln	Gln	Gln	Val
210		-			325					330					335	
211	Ala	Met	Leu	Ala	Gln	Gln	Gln	Ala	Leu	Tyr	Met	Ala	Ala	Ala	Lys	Ala
212				340					345	•				350	•	
213	Ala	Gly	Gly	Thr	Pro	Asn	Gly	Val	Asn	Gln	Gln	Ala	Ile	Ala	Asn	Ala
214		•	355				-	360					365			
215	Leu	Asn	Val	Ala	Ser	Ala	Asn	Trp	Ser	Asn	Pro	Glv	Glv	Tvr	Gln	Ile
216		370					375					380		-		
	Pro		Met	Thr	Asn	Pro	Val	Glv	Glv	Gln	Ala	Asp	Leu	Gln	Lvs	Leu
218		- 1				390		2			395					400
219	Met	Gln	Asn	Met	Asn	Met	Asn	Ala	Asn	Met	Asn	Thr	Arq	Pro	Ala	Gln
220					405					410					415	
	Pro	Gln	Glu	Asn	Thr	Leu	Gln	Tvr	Pro		Ser	Ser	Phe	Tvr		Met
222				420				•	425					430		
	Glv	Gln	Ala		Gln	Val	Asn	Glv	Met	Thr	Pro	Asn	Ser		Glv	Lvs
224			435					440					445		2	
	Pro	Gln		Ser	Ser	Ala	Thr	Gln	Pro	Thr	Ser	Thr	Thr	Pro	Ser	Ser
226		450					455					460				
	Gln		Glv	Lvs	Asp	Phe		Phe	Ser	Ser	Leu	Met	Asp	Glv	Met	Phe
228			1	-1-	<u>F</u>	470					475		F	1		480
	Thr	Lvs	His													
		_	ZQ II	NO.	. 3											
			ENGTH													
			PE:													
					Arak	o i dor	nsis	thal	iana	a						
			EATUR			7-40-	,,,,,	0		•						
			AME/H		CDS											
			•		(1)	(1	14521	1								
			EQUEN				,	,								
			-		gcc	220	atc	tct	aan	gag	ctt	aat	acc	cac	cat	aga
243	acy	aac	349	aua	900	auc	900		aay	343		aat	900	cyc	Cut	aya

RAW SEQUENCE LISTING DATE: 02/08/2006 PATENT APPLICATION: US/10/630,518A TIME: 12:08:12

24 24		Met 1	Asn	Glu	Lys	Ala 5	Asn	Val	Ser	Lys	Glu 10	Leu	Asn	Ala	Arg	His 15	Arg	
24	7	aag	att	ctt	gaa	ggg	ctt	ctt	aaa	cat	cca	gag	aac-	aga	gaa	tat	act	96
		_			_	Gly								-	_	_	_	
24		_,_			20		204		_,_	25		014		9	30	0,0		
													~					144
						aaa												144
		Asp	Cys	Lys	Thr	Lys	GTA	Pro	Arg	Trp	Ala	Ser	Val	Asn	Leu	GIĀ	Ile	
25	3			35					40					45				
25	5	ttt	atc	tac	atg	caa	tgt	tct	999	att	cac	agg	agt	ctc	ggg	gta	cac	192
25	6	Phe	Ile	Tyr	Met	Gln	Cys	Ser	Gly	Ile	His	Arg	Ser	Leu	Gly	Val	His	
25	7		50					55					60					
25	9	ata	tca	aaq	att	cga	tct	qcc	act	cta	qac	aca	taa	ctc	ccc	qaq	caq	240
			_	_	_	Arg		-		_	-						_	
26		65		<i></i> ,		5	70				P	75					80	
			~~~	+++	252	a2a		2+~	~~~	224	ant.		<b>a</b> aa	<del>-</del>	act	t 2.0		288
		_	-			cag		_			_		_		_			200
		vaı	Ата	Pne	тте	Gln	ser	Met	GLY	ASI	_	ьys	Ата	Asn	ser	_	Trp	
26						85					90		•			95		
		-	-			ccc				_	_	_						336
26	8	Glu	Ala	Glu	Leu	Pro	Pro	Asn	Tyr	Asp	Arg	Val	Gly	Ile	Glu	Asn	Phe	
26	9				100					105					110			
27	1	ata	cgt	gca	aag	tat	gaa	gag	aag	aga	tgg	gtt	tct	aga	999	gaa	aag	384
27	12	Ile	Arg	Ala	Lys	Tyr	Glu	Glu	Lys	Arg	Trp	Val	Ser	Arg	Gly	Glu	Lys	
27	73		-	115	_	_			120	_	_			125				
27	15	act	aga	tca	cct	cct	aga	atc	gag	caq	gaa	caa	caa	aaa	tct	ata	gag	432
						Pro												
27			130				5	135				5	140	-1-				
		ana		aaa	cca	gga	tat		cat	aa a	cat	agt		agt	cct	ata	aat	480
		_	-		-			-				-	_	_		_		400
		_	ser	Gry	PIO	Gly	•	Gru	пір	Gry	nis		Ser	Ser	PIO	vai		
		145					150					155					160	500
		_				agg					-		_		_			528
28	4	Leu	Phe	Glu	Glu	Arg	Lys	Thr	He	Pro	Ala	Ser	Arg	Thr	Arg		Asn	
28	35					165					170					175		
28	7	gtt	gct	gca	acg	aga	ata	aat	ctt	CCC	gtg	cct	CCC	caa	gga	CCC	agt	576
28	8	Val	Ala	Ala	Thr	Arg	Ile	Asn	Leu	Pro	Val	Pro	Pro	Gln	Gly	Pro	Ser	
28	9				180					185					190			
29	1	cag	gtt	ata	aag	cca	cag	cag	aaa	atg	gag	tct	gca	gct	act	cca	gta	624
						Pro												
29				195	•				200					205				
		αaα	agg		222	caa	aca	ota		att	aca	cca	gca		gat	cct	cca	672
						Gln												0,_
29		GIU	210	GIU	цуъ	GIII	AIA	215	ASII	Vai	AIA	FIO	220	Ser	нэр	FIO	110	
																		700
						gct												720
			vaı	Asp	rne	Ala		Asp	ьeu	rne	Asn		ьeu	ser	met	Asp	_	
		225					230					235					240	
						acc												768
30	4	Ser	Thr	Thr	Asn	Thr	Ser	Glu	Ala	Thr	Pro	Gly	Asp	Thr	Pro	Ala	Asp	
30	5					245					250					255		
30	7	gat	aac	tca	tgg	gct	ggc	ttt	cag	tct	gct	gga	agt	ggt	caa	acg	gca	816
						Āla												
	_						- 2					- 1		4				

VERIFICATION SUMMARY

DATE: 02/08/2006 TIME: 12:08:13

PATENT APPLICATION: US/10/630,518A